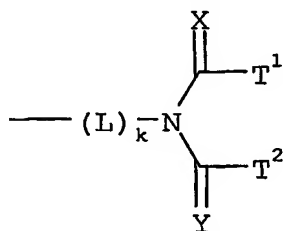


[CLAIMS]

1. A polymer comprising a phenolic monomeric unit wherein the H atom
 5 of the hydroxy group of the phenolic monomeric unit is replaced
 by a N-imide group Q having the structure



wherein L is a linking group,

wherein k is 0 or 1,

- 10 wherein L is covalently bound to the O atom of the polymer for k
 is 1, or wherein the N atom of the N-imide group is covalently
 bound to the O atom of the polymer for k is 0,

wherein X or Y are independently selected from O or S, and

wherein T^1 and T^2 represent a terminal group.

- 15 2. A polymer according to claim 1 wherein the terminal groups T^1 and
 T^2 are independently selected from an optionally substituted
 alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl,
 heteroaryl, aralkyl or heteroaralkyl group, or wherein T^1 and T^2
 together with the N-imide group represent the necessary atoms to
 20 form a cyclic structure, or wherein T^1 and T^2 represent the
 following structures $-\text{L}^1-\text{R}^1$ and $-\text{L}^2-\text{R}^2$,

wherein L^1 and L^2 represent independently a linking group,

wherein R^1 and R^2 are independently selected from hydrogen, an
 optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl,

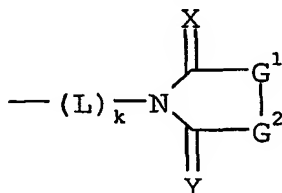
- 25 heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group,
 halogen, -CN, or -NO₂,

or wherein two groups selected from each L^1 , L^2 , R^1 and R^2

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together represent the necessary atoms to form a cyclic structure.

3. A polymer according to claims 1 or 2 wherein the N-imide group Q
5 has the following formula

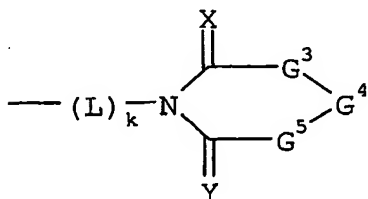


wherein G^1 and G^2 are independently selected from O, S, NR^3 or CR^4R^5 , with the limitation that G^1 is not O or S when G^2 is O and that G^1 is not O or S when G^2 is NR^3 ,

10 wherein R^4 and R^5 are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or $\text{---L}^3\text{---R}^6$, wherein L^3 is a linking group,

15 wherein R^3 and R^6 are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or wherein two groups selected from each R^3 , R^4 , R^5 , R^6 and L^3 together represent the necessary atoms to form a cyclic structure.

- 20 4. A polymer according to claims 1 or 2 wherein the N-imide group Q has the following formula



wherein G^3 to G^5 are independently selected from O, S, NR^7 or

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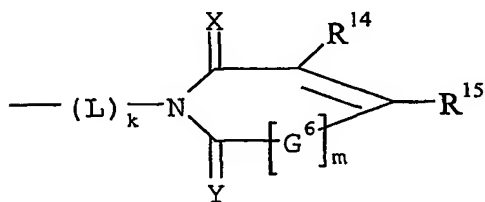
CR^8R^9 , with the limitation that at least one group, selected from G^3 to G^5 , is CR^8R^9 and that two neighbouring groups, selected from G^3 to G^5 , are not represented by O and S, by O and NR^7 , by S and NR^7 or by O and O,

or wherein G^4 is a linking group,

wherein R^8 and R^9 are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or $-L^4-R^{10}$, wherein L^4 is a linking group,

wherein R^7 and R^{10} are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or wherein two groups selected from each R^7 , R^8 , R^9 , R^{10} and L^4 together represent the necessary atoms to form a cyclic structure.

5. A polymer according to claims 1 or 2 wherein the N-imide group Q has the following formula



wherein G^6 is a group selected from O, S, NR^{11} or $CR^{12}R^{13}$,

wherein m is 0 or 1,

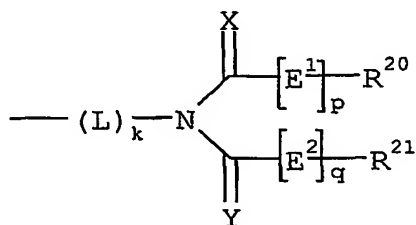
wherein R^{12} to R^{15} are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or $-L^5-R^{16}$, wherein L^5 is a linking group,

wherein R^{11} and R^{16} are independently selected from hydrogen or an

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optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or wherein two groups selected from each R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} and L^5 together represent the necessary atoms to form a cyclic structure.

6. A polymer according to claims 1 or 2 wherein the N-imide group Q has the following formula



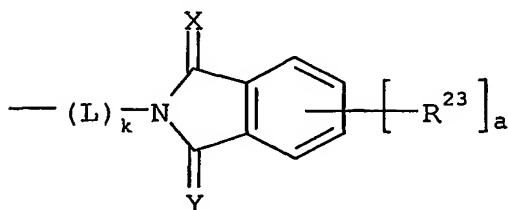
wherein E^1 and E^2 are independently selected from O, S, NR^{17} or $CR^{18}R^{19}$,

wherein p and q are independently 0 or 1,

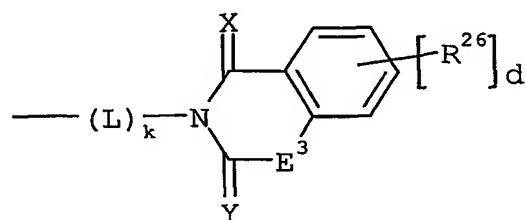
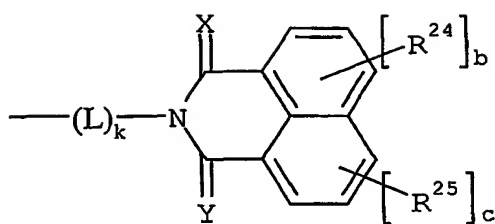
wherein R^{18} to R^{21} are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or $-L^6-R^{22}$, wherein L^6 is a linking group,

wherein R^{17} and R^{22} are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

7. A polymer according to claims 1 or 2 wherein the N-imide group Q has one of the following formula:



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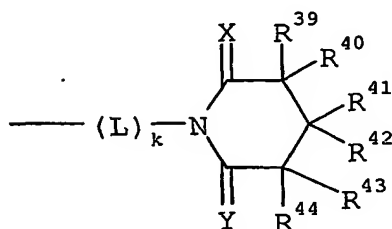
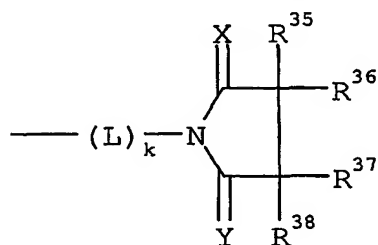
wherein each R^{23} to R^{26} are independently selected from hydrogen,
 an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl,
 heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group,
 halogen, $-\text{SO}_2-\text{NH}-R^{27}$, $-\text{NH}-\text{SO}_2-R^{30}$, $-\text{CO}-\text{NR}^{27}-R^{28}$, $-\text{NR}^{27}-\text{CO}-R^{30}$,
 $-\text{NR}^{27}-\text{CO}-\text{NR}^{28}-R^{29}$, $-\text{NR}^{27}-\text{CS}-\text{NR}^{28}-R^{29}$, $-\text{NR}^{27}-\text{CO}-\text{O}-R^{28}$,
 $-\text{O}-\text{CO}-\text{NR}^{27}-R^{28}$, $-\text{O}-\text{CO}-R^{30}$, $-\text{CO}-\text{O}-R^{27}$, $-\text{CO}-R^{27}$, $-\text{SO}_3-R^{27}$,
 $-\text{O}-\text{SO}_2-R^{30}$, $-\text{SO}_2-R^{27}$, $-\text{SO}-R^{30}$, $-\text{P}(=\text{O})(-\text{O}-R^{27})(-\text{O}-R^{28})$,
 $-\text{O}-\text{P}(=\text{O})(-\text{O}-R^{27})(-\text{O}-R^{28})$, $-\text{NR}^{27}-R^{28}$, $-\text{O}-R^{27}$, $-\text{S}-R^{27}$, $-\text{CN}$, $-\text{NO}_2$,
 $-\text{N}(-\text{CO}-R^{27})(-\text{CO}-R^{28})$, $-\text{N-phthalimidyl}$, $-\text{M-N-phthalimidyl}$, or
 $-\text{M}-R^{27}$, wherein M represents a divalent linking group containing 1
 to 8 carbon atoms,
 wherein R^{27} to R^{29} are independently selected from hydrogen or an
 optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl,
 heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group,
 wherein R^{30} is selected from an optionally substituted alkyl,
 alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl,
 aralkyl or heteroaralkyl group,
 wherein a and d are independently 0, 1, 2, 3 or 4,
 wherein b and c are independently 0, 1, 2 or 3,
 wherein E^3 is selected from O, S, NR^{31} or $\text{CR}^{32}\text{R}^{33}$,

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wherein R^{32} and R^{33} are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or $-L^7-R^{34}$, wherein L^7 is a linking group,

wherein R^{31} and R^{34} are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

8. A polymer according to claims 1 or 2 wherein the N-imide group Q has one of the following formula:



wherein R^{35} to R^{44} are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group,

halogen, $-\text{SO}_2-\text{NH}-R^{45}$, $-\text{NH}-\text{SO}_2-R^{48}$, $-\text{CO}-\text{NR}^{45}-R^{46}$, $-\text{NR}^{45}-\text{CO}-R^{48}$, $-\text{NR}^{45}-\text{CO}-\text{NR}^{46}-R^{47}$, $-\text{NR}^{45}-\text{CS}-\text{NR}^{46}-R^{47}$, $-\text{NR}^{45}-\text{CO}-\text{O}-R^{46}$,

$-\text{O}-\text{CO}-\text{NR}^{45}-R^{46}$, $-\text{O}-\text{CO}-R^{48}$, $-\text{CO}-\text{O}-R^{45}$, $-\text{CO}-R^{45}$, $-\text{SO}_3-R^{45}$,

$-\text{O}-\text{SO}_2-R^{48}$, $-\text{SO}_2-R^{45}$, $-\text{SO}-R^{48}$, $-\text{P}(=\text{O})(-\text{O}-R^{45})(-\text{O}-R^{46})$,

$-\text{O}-\text{P}(=\text{O})(-\text{O}-R^{45})(-\text{O}-R^{46})$, $-\text{NR}^{45}-R^{46}$, $-\text{O}-R^{45}$, $-\text{S}-R^{45}$, $-\text{CN}$,

$-\text{N}(-\text{CO}-R^{45})(-\text{CO}-R^{46})$, $-\text{N-phthalimidyl}$, $-\text{M-N-phthalimidyl}$, or

$-\text{M}-R^{45}$, wherein M represents a divalent linking group containing 1

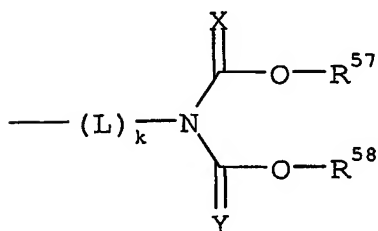
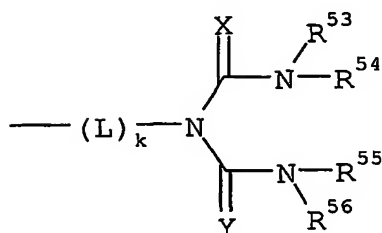
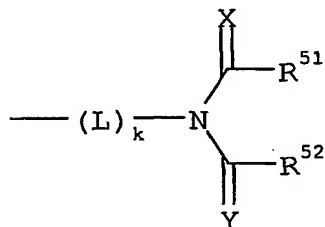
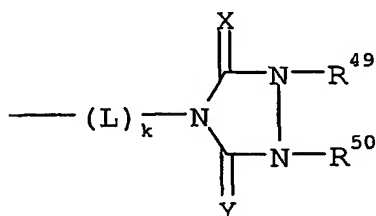
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to 8 carbon atoms,

wherein R^{45} to R^{47} are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group,

wherein R^{48} is selected from an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

9. A polymer according to claims 1 or 2 wherein the N-imide group Q has one of the following formula:

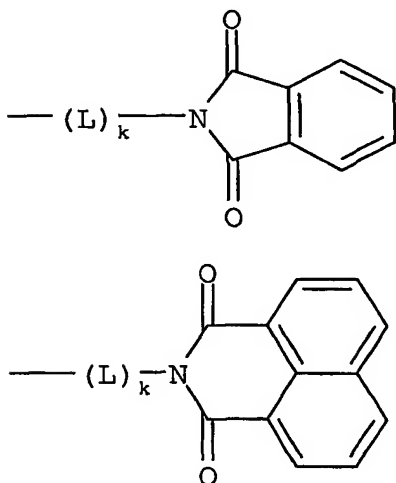


wherein R^{49} to R^{56} are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group,

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and wherein R^{57} and R^{58} are independently selected from an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

10. A polymer according to claims 1 or 2 wherein the N-imide group
 5 Q has one of the following formula:



11. A polymer according to any of the preceding claims, wherein
 said polymer comprising a phenolic monomeric unit is a novolac,
 10 resol or polyvinylphenol.

12. A heat-sensitive lithographic printing plate precursor
 comprising a support having a hydrophilic surface and an
 oleophilic coating, provided on the hydrophilic surface, said
 coating comprising an infrared light absorbing agent and a
 15 polymer according to any of the preceding claims.

13. A lithographic printing plate precursor according to claim 12,
 wherein said coating further comprises a dissolution inhibitor
 and wherein said precursor is a positive working lithographic
 printing plate precursor.

- 20 14. A lithographic printing plate precursor according to claim 13,
 wherein said dissolution inhibitor is selected from
- an organic compound which comprises at least one aromatic group and a hydrogen bonding site, and/or

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- a polymer or surfactant comprising siloxane or perfluoroalkyl units.

15. Use of a polymer, according to any of the claims 1 to 11,
in a coating of a positive working heat-sensitive lithographic
printing plate precursor, further comprising

- an infrared absorbing agent and
- a dissolution inhibitor,

for increasing the chemical resistance of the coating against
printing liquids and press chemicals.

16. A lithographic printing plate precursor according to claim 12,
wherein said coating further comprising a latent Brönsted acid
and an acid-crosslinkable compound and wherein said precursor is
a negative working lithographic printing plate precursor.

17. Use of a polymer, according to any of the claims 1 to 11,
in a coating of a negative working heat-sensitive lithographic
printing plate precursor, further comprising

- an infrared absorbing agent,
- a latent Brönsted acid and
- an acid-crosslinkable compound,

for increasing the chemical resistance of the coating against
printing liquids and press chemicals.

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